

IN THE CLAIMS

1. (currently amended) An orthopedic system, comprising:

a) an orthopedic implant defining at least one first hole having at least one first thread at a first depth, and at least one second hole;

b) a first fastener having a head portion and a shaft portion, said head portion having a second thread with a second depth substantially greater than said first depth, said second thread threadably engaging with said at least one first thread when said first fastener is inserted into said first hole; and

c) a second fastener sized for use within said at least one second hole.

2. (original) An orthopedic system according to claim 1, wherein:

said at least one first thread is two threads offset by approximately 180°

3. (original) An orthopedic fixation system according to claim 2, wherein:

said second depth is approximately twice said first depth.

4. (original) An orthopedic fixation system according to claim 2, wherein:

said at least one first hole is cylindrical.

5. (original) An orthopedic fixation system according to claim 1, wherein:

said at least one first hole is cylindrical.

6. (original) An orthopedic fixation system according to claim 1, wherein:

said shaft of said first fastener includes a third thread along at least a portion thereof.

7. (original) An orthopedic fixation system according to claim 6, wherein:

said second and third threads have different pitches.

8. (original) An orthopedic fixation system according to claim 7, wherein:

said pitch of said third thread is greater than said pitch of said second thread.

9. (original) An orthopedic fixation system according to claim 6, wherein:

said third thread is provided along a distal portion of said shaft and is absent from a proximal portion of said shaft.

10. (original) An orthopedic fixation system according to claim 1, wherein:

said implant includes a head portion configured and dimensioned to conform to a metaphysis of a bone and a shaft portion configured and dimensioned to conform to a diaphysis of a bone,

wherein said at least one first hole is provided in said head portion and said at least one second hole is provided in said shaft portion.

11. (original) An orthopedic system according to claim 10, wherein:

said second fastener is a cortical screw sized to provide compression of said shaft portion of said implant against the bone.

12. (original) An orthopedic system, comprising:

- a) an orthopedic implant defining at least one substantially cylindrical first hole having at least two discrete helical threads each with an entry offset by a predetermined angular displacement; and
- b) a first fastener having a head portion sized for engagement within said first hole and a shaft portion, said head portion having a thread,

wherein when said first fastener is engaged in said first hole, said thread of said head engages with only one of said discrete helical threads.

13. (original) An orthopedic system according to claim 12, wherein:

said first hole includes exactly two helical threads with respective entries offset by approximately 180°.

14. (original) An orthopedic system according to claim 13, wherein:

each of said two helical threads of the first hole has a depth of no more than one half the depth of the thread on the head portion of the first fastener.

15. (original) An orthopedic system according to claim 12, wherein:

said shaft of said first fastener includes a thread along at least a portion thereof.

16. (original) An orthopedic system according to claim 15, wherein:

said threads along said head and shaft portions are of different pitches.

17. (original) An orthopedic system according to claim 16, wherein:

said pitch of said thread about said shaft portion is greater than said pitch of said thread about said head.

18. (original) An orthopedic system according to claim 15, wherein:

said thread on said shaft is provided along a distal portion of said shaft and is absent from a proximal portion of said shaft.

19. (original) An orthopedic system according to claim 12, wherein:

said implant includes a head portion configured and dimensioned to conform to a metaphysis of a bone and a shaft portion configured and dimensioned to conform to a diaphysis of a bone,

wherein said at least one first hole is provided in said head portion, and a second hole is provided in said shaft portion.

20. (original) An orthopedic system according to claim 19, further comprising:

c) a cortical screw sized for use within said second hole to provide compression of said shaft portion of said plate against the bone.

21. (currently amended) A bone fixation system, comprising:

a) a plate including at least one threaded hole; and

b) a bone fastener including a head portion having a first machine thread with a first pitch, and a shaft portion having a second thread with a second pitch greater than said first pitch, said

thread on said shaft is provided along a distal portion of said shaft and is absent from a proximal portion of said shaft,

wherein said head portion of said bone fastener is configured to ~~threadedly~~ threadably engage with said at least one threaded hole.

22. (original) A bone fixation system according to claim 21, wherein:

said threaded and non-threaded portions of said shaft of said fastener are substantially equal in length.

23. (original) A bone fastener, comprising:

a) a head portion having a first machine thread with a first pitch; and

b) a shaft portion having a second thread with a second pitch greater than said first pitch,

wherein said thread on said shaft is provided along a distal portion of said shaft and is absent from a proximal portion of said shaft.

24. (original) A bone fastener according to claim 23, wherein:

said threaded and non-threaded portions of said shaft are substantially equal in length.

25. (original) A method of stabilizing a metaphyseal fracture of long bone, comprising:

a) providing an orthopedic implant with a plate portion provided with a first hole having at least two angularly offset helical threads;

b) providing a first fastener having a head and a shaft, where the head has a single helical thread; and

c) inserting the first fastener through the first hole and into the bone and locking the head of the first fastener in only one of the angularly offset helical threads of the hole.

26. (original) A method according to claim 25, further comprising  
prior to c), reducing the fracture.

27. (original) A method according to claim 25, wherein:

the fracture includes a bone fragment spaced apart from the plate by a larger section of bone, and the shaft of the first fastener includes threads, such that said inserting the first fastener causes the threads on the first fastener to engage the bone fragment.

28. (original) A method according to claim 27, wherein:

the threads on the shaft of the first fastener have a pitch greater than the threads on the head of the first fastener, such that said inserting the first fastener causes the threads on the first fastener to provide limited compression of the bone fragment against the larger section of bone in the direction of the plate.

29. (original) A method according to claim 25, further comprising:

compressing the plate against the bone.

30. (original) A method according to claim 25, wherein:

said providing an orthopedic implant includes providing a plate with a head portion configured and dimensioned to conform to a metaphysis of a bone and a shaft portion configured and dimensioned to conform to a diaphysis of a bone.

31. (original) A method of stabilizing a metaphyseal fracture of long bone, wherein the metaphyseal fracture includes a smaller bone fragment spaced apart from a larger metaphyseal fragment of the bone, the method comprising:

- a) providing an implant with a plate portion with a first hole having at least one helical thread;
- b) providing a first fastener having a head and a shaft, where the head has a first helical thread at a first pitch for engagement with one of the at least one helical threads of the first hole, and the shaft has a distal portion with a second helical thread at a second pitch different than the first pitch, and a proximal portion from which the second helical thread is absent; and
- c) inserting the first fastener through the first hole and into the larger and smaller bone fragments and locking the head of the first fastener relative to the first hole, wherein the rotational travel of the head of the first fastener through the first hole is sufficient to cause a limited amount of compression of the smaller fragment against the larger fragment.

32. (original) A method of stabilizing a metaphyseal fracture of long bone, wherein the metaphyseal fracture includes a distal bone fragment spaced apart from a proximal bone fragment, the method comprising:

- a) providing an implant with a plate portion with a first hole having at least one helical thread;
- b) providing a first fastener having a head and a shaft, where the head has a first helical thread at a first pitch for engagement with one of the at least one helical threads of the first hole, and the shaft has a distal portion with a second helical thread at a second pitch different than the first pitch, and a proximal portion from which the second helical thread is absent; and
- c) inserting the first fastener through the first hole and into the proximal and distal bone fragments and locking the head of the first fastener relative to the first hole, wherein the

rotational travel of the head of the first fastener through the first hole is sufficient to cause a limited amount of compression of the distal fragment against the proximal fragment.